CLAIMS

I claim:

1. A method of data gathering using a portable memory device, the method comprising:

a customer conducting at least one business transaction with at least one vendor at a point of sale;

connecting said portable memory device to a first computer system used by said vendor, during said business transaction, wherein said portable memory device is received from said customer at said point of sale;

receiving a set of data from a data processing system used by said vendor, wherein said set of data is generated as the result of said customer conducting said business transaction;

preparing data contents of at least one of following data file: a transaction data file and an electronic receipt file, using said set of data and creating at least one of said transaction data file and said electronic receipt file in said portable memory device; and

detaching said portable memory device from said first computer system and said customer receiving back said portable memory device.

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2. The method of claim 1, wherein said detaching step further comprising:

   disconnecting said portable memory device from an operating system
   executing in said first computer system; and

   notifying at least one of said customer and said vendor to detach said
   portable memory device from said first computer system.

3. The method of claim 1 further comprising:

   connecting said portable memory device to a second computer system; and

   identifying at least one of said transaction data file and said electronic
   receipt file in said portable memory device and extracting each of the
   identified file into a second database.

4. The method of claim 3 performed by said customer over a period of time, after
   collecting a plurality of the data files in said portable memory device, corresponding
   to a plurality of said business transaction from a plurality of said vendor.

5. The method of claim 3, wherein said identifying step is by means of a computer-
   implemented search of the file system of said portable memory device by using at
   least one of a pre-determined file name pattern and pre-determined file data content
   pattern.

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6. The method of claim 1 further comprising:

    said customer creating a device configuration file in said portable memory device, wherein said device configuration file comprising at least one of a:

    unique customer identification data;

    unique user identification data;

    an indication of whether said customer would like to receive said electronic receipt file into said portable memory device;

    an indication of how to represent payment card identification in said transaction data file and said electronic receipt file; and

    one or more user defined data.

7. The method of claim 1, wherein said preparing step further comprising:

    checking for existence of the device configuration file in said portable memory device;

    if the device configuration file exists, extracting the unique customer identification data from the device configuration file; and

associating the unique customer identification data with one or more data elements of said set of data and storing in a first database.

8. The method of claim 7, wherein said vendor using said first database to identify frequent customers.

9. The method of claim 7, wherein said vendor checking for whether said customer qualifies for any business promotion, using the data from said first database and if qualifies, providing the business promotion to said customer.

10. The method of claim 9, wherein said providing the business promotion step is by means of creating a business promotion file in said portable memory device, wherein said business promotion file comprising at least one of:

a textual description of the business promotion provided by said vendor; and

a uniform resource locator hyperlink, when clicked by said customer, directs said customer to a website in the Internet to participate in said business promotion.

11. The method of claim 3, wherein said identifying and extracting step further comprising:

> providing a third computer program in said portable memory device, wherein said third computer program automatically starts executing during the said connecting to the second computer system step and when executing, instructs a second computer program executing in said second computer system to automatically identify and extract one or more of the data files into said second database; and

> disconnecting said portable memory device and instructing said customer to to detach said portable memory device from said second computer system.

12. The method of claim 1, wherein said customer is represented by a plurality of users, wherein, some or all of the users are provided with said portable memory device and each of said portable memory device is identified by creating unique user identification in the device configuration file in said portable memory device, whereby said customer can gather data from a plurality of said business transaction in a multi-user environment.

13. The method of claim 12 used by said customer for processing employee travel expenses, wherein said user is an employee of said customer.

14. The method of claim 12 used by said customer for consolidating household expenses, wherein said user represent a household member.

15. The method of claim 3, wherein said identifying and extracting step is used in a personal finance management software product.

16. The method of claim 3, wherein said identifying and extracting step is used in a document management software product.

17. The method of claim 3, wherein said identifying and extracting step is used in a business finance management software product.

18. The method of claim 3, wherein said identifying and extracting step is used in an enterprise content management software product.

19. The method of claim 1, wherein said customer is one of an individual, a business entity, a household entity and a government entity.

20. The method of claim 1, wherein said vendor is one of a business entity and a government entity.

21. The method of claim 1, wherein said vendor is one of a seller of products and a seller of services.

22. The method of claim 1, wherein said electronic receipt file is a computer image representation of corresponding paper receipt of said business transaction.

23. The method of claim 1, wherein said transaction data file comprising all of the information that can be found in a corresponding paper receipt of said business transaction.

24. The method of claim 23, wherein said transaction data file further comprising at least one of:

a category of said vendor;

a category of said business transaction; and

a subcategory for each individual line items of said business transaction.

25. The method of claim 1, wherein said transaction data file is in an extensible manipulation language format.

26. The method of claim 1, wherein said data processing system is a data processing system that processes said business transaction at said point of sale.

27. The method of claim 1, wherein said preparing and creating step is used in a software product used for processing said business transaction.

28. The method of claim 1 further comprising:

checking for acceptance criteria of said portable memory device before performing said preparing step, and, if the result from said acceptance criteria is in the negative, disconnecting said portable memory device and notifying at least one of said customer and said vendor to detach said

portable memory device from said first computer system, wherein said acceptance criteria comprising at least one of:

checking for whether harmful files exist in said portable memory device; and

checking for existence of identification data of said customer in the device configuration file.

29. The method of claim 1, wherein said portable memory device is a compact flash memory product.

30. The method of claim 29, wherein said portable memory device is a compact memory card.

31. The method of claim 1, wherein said portable memory device is a unitary portable memory device having a universal serial bus connector adapted to the storage device, the device capable of being directly connected to a computer via the connector.

32. The method of claim 1, wherein said portable memory device is a unitary portable memory device having a firewire data port connector adapted to the storage device, the device capable of being directly connected to a computer via the connector.

33. The method of claim 1, wherein said connecting and detaching of said portable memory further comprising:

said customer providing said portable memory device to an individual representing said vendor at said point of sale;

said individual attaching said portable memory device to said first computer system; and

after the completion of processing, said individual detaching said portable memory device and returning back to said customer.

34. The method of claim 1, wherein said connecting and detaching of said portable memory further comprising:

providing an apparatus for attaching and detaching said portable memory device to said first computer system, during said business transaction at said point of sale, by said customer, without human assistance from said vendor, the apparatus comprising:

a portable memory connector for attaching and detaching said portable memory device by said customer, wherein said portable memory connector is attached to a location easily accessible and visible by said customer at said point of sale; and

a first connecting means for connecting said portable memory connector to said first computer system.

35. The apparatus of claim 34, wherein said portable memory connector comprising a universal serial bus socket, placed within a socket case, wherein said universal bus socket is capable of accepting a unitary portable memory device with a universal serial bus connector.

36. The apparatus of claim 34, wherein said first connecting means is combination of a data cable and a data port connector, capable of connecting said portable memory connector to a universal serial bus port of said first computer system.

37. The apparatus of claim 34, wherein said portable memory connector comprising a memory card reader.

38. The apparatus of claim 34, wherein said location is a self-service terminal.

39. The apparatus of claim 38, wherein said self-service terminal is an automatic checkout counter.

40. The apparatus of claim 38, wherein said self-service terminal is an automatic teller machine.

41. The apparatus of claim 38, wherein said self-service terminal is a vending machine.

42. A data gathering method comprising:

a customer creating a identification data in a device configuration file in a portable memory device, wherein said identification data uniquely identifies said customer to a vendor;

said customer entering into a business transaction with said vendor at a point of sale;

connecting said portable memory device to a computer system used by said vendor at said point of sale;

reading said identification data of said customer from said device configuration file;

receiving a set of data from a data processing system, wherein said set of data is generated as the result of said customer conducting said business transaction with said vendor; and

associating one or more of a data element from said set of data with said identification data and storing in a database.

43. The method of claim 42, wherein said creating the identification data is by providing a computer program to said customer, wherein each installation of said computer program has a plurality of customer identification data values that are unique to each of the installation of said computer program, and said customer choosing one customer identification data value from said plurality of customer identification data

values and creating said identification data by using the chosen customer identification data value.

44. The apparatus of claim 42, wherein said creating the identification data is by means of said customer connecting to a remote website on the Internet and requesting and receiving said identification data.

45. A method of returning at least one purchased item to a vendor, by a customer, using a portable memory device, the method comprising:

said customer returning the purchased item to said vendor and providing said portable memory device;

receiving the purchased item identification;

performing computer-implemented search for identifying at least one of following data file: a transaction data file and electronic receipt file, in said portable memory device, wherein the data contents of the data file, comprising said purchased item identification; and

visually outputting the data contents of identified data file to said vendor to complete the return transaction.

46. The method of claim 45, further comprising, modifying the identified data file to reflect the return transaction.

47. The method of claim 45, wherein said purchased item is a purchased product.

48. The method of claim 45, wherein said purchased item is a purchased service.

49. The method of claim 45, wherein said purchase item identification is a universal product code.

50. A computer readable medium storing a computer program with a plurality of code sections, when executed by a computer, causes the computer to perform the steps of:

receiving a set of data from a data processing system, wherein said set of data is generated as the result of a customer conducting a business transaction with a vendor at a point of sale;

preparing data contents of at least one of a transaction data file and electronic receipt file using said set of data; and

creating at least one of said transaction data file and said electronic receipt file in a portable memory device, wherein said portable memory device is provided by said customer during said business transaction at said point of sale.

51. The computer readable medium of claim 50, wherein the steps further comprising:

checking for a device configuration file in said portable memory device, and if found, extracting a customer identification data from said device configuration file; and

associating one or more of a data element from said set of data with said customer identification data and storing in a database.

52. The computer readable medium of claim 50, wherein said transaction data file is in a XML format.

53. The computer readable medium of claim 50, wherein said electronic receipt file is in a computer image format.

54. The computer readable medium of claim 50, wherein said transaction data file is in a personal finance management software program readable format.

55. The computer readable medium of claim 50, wherein said transaction data file is in a business finance management software program readable format.

56. The computer readable medium of claim 50, wherein the steps further comprising:

creating multiple user interaction sessions at different time intervals during various stages of execution of said computer program for presenting a plurality of messages to at least one of said customer and said vendor and receiving a plurality of inputs from at least one of said customer and said vendor.

57. The computer readable medium of claim 50, wherein said computer program is part of a software product handling business transactions at said point of sale.

58. A computer readable medium storing a computer program with a set of instructions that, when executed by a computer, causes the computer to perform the steps of:

receiving at least one purchased item identifier corresponding to a purchased item by a customer;

identifying at least one of following data file: a transaction data file and an electronic receipt file in a portable memory device connected to the computer, wherein the data file contents comprising a data value matching with said purchased item identifier and portable memory device is provided by said customer; and

displaying the data file contents to a vendor using a display unit of the computer to assist said vendor to complete a return transaction.

59. The computer readable medium of claim 58, wherein the steps further comprising:

modifying the data file in said portable memory device to reflect the return transaction.

60. The computer readable medium of claim 58, wherein said computer program is part of a point of sale software product.

61. A computer readable medium storing a computer program with a plurality of code sections, when executed by a computer, causes the computer to perform the steps of:

identifying at least one of the following data file: a transaction data file and an electronic receipt file, in a portable memory device attached to said computer, wherein the data files are received by a customer from one or more vendors at a point of sale; and

extracting each of the data file into a database.

62. The computer readable medium of claim 61, wherein said identifying step is by means of searching for the data files by using at least one of a file name pattern and data content pattern and receiving a list of matching files.

63. The computer readable medium of claim 61, wherein said steps further comprising:

creating a device configuration file in said portable memory device with at least one of:

first data parameter assigned with unique customer identification data value;

second data parameter assigned with unique user identification data value;

third parameter assigned with the customer choice indicating whether the customer would like to receive the electronic receipt file in said portable memory device;

fourth parameter assigned with the customer choice indicating whether the customer would like to receive a business promotion file in said portable memory device; and

fifth data parameter assigned with a data value selected from a plurality of values, indicating how the vendor should identify a payment card used for the business transaction in the transaction and electronic receipt files.

64. The computer readable medium of claim 61, wherein said identifying and extracting step is used in a personal finance management software product to automatically extract the data files into said database, wherein said database is a database used by said personal finance management software product.

65. The computer readable medium of claim 61, wherein said identifying and extracting step is used in a business finance management software product to automatically extract the data files into said database, wherein said database is a database used by said business finance management software product.

66. The computer readable medium of claim 61, wherein said identifying and extracting step is used in a document management software product to automatically extract

the data files into said database, wherein said database is a database used by said document management software product.

67. The computer readable medium of claim 61, wherein said identifying and extracting step is used in an enterprise content management software product to automatically extract the data files into said database, wherein said database is a database used by said enterprise content management software product.

68. The computer readable medium of claim 61 further comprising:

a set of customer identification data values, wherein said set of customer identification data values are unique and distributed with each installation of said customer program and said customer selecting one data value from said set of customer identification data values and using the data value as the unique customer identification data in the device configuration file.

69. The computer readable medium of claim 61, wherein the steps further comprising:

creating multiple user interaction sessions at different time intervals during various stages of execution of said computer program for presenting a plurality of messages to said customer and receiving a plurality of inputs from said customer.

70. An apparatus for attaching and detaching a portable memory device to a computer system used by a vendor, during a business transaction at a point of sale, by a customer, without human assistance from a vendor, the apparatus comprising:

a portable memory connector for attaching and detaching said portable memory device by said customer, wherein said portable memory connector is attached to a location easily accessible and visible by said customer at said point of sale; and

a first connecting means for connecting said portable memory connector to said computer system.

71. The apparatus of claim 70, wherein said portable memory connector comprising a universal serial bus socket, placed within a socket case, wherein said universal bus socket is capable of accepting a unitary portable memory device with a universal serial bus connector.

72. The apparatus of claim 70, wherein said first connecting means is combination of a data cable and a data port connector, capable of connecting said portable memory connector to a universal serial bus port of said computer system.

73. The apparatus of claim 70, wherein said portable memory connector comprising a memory card reader.

74. The apparatus of claim 70, wherein said location is a self-service terminal.

75. The apparatus of claim 74, wherein said self-service terminal is an automatic checkout counter.

76. The apparatus of claim 74, wherein said self-service terminal is an automatic teller machine.

77. The apparatus of claim 74, wherein said self-service terminal is a vending machine.